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(54) **A CELL-BASED ARRAY PLATFORM**

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(57) **ABSTRACT**

The present invention relates to a method for display of a plurality of mammalian glycans on cells or proteins for probing biological interactions and identifying glycan structures involved. A plurality of mammalian cells is genetically engineered in a combinatorial approach to differentially express the human glycome. Genetic engineering of the cell produces a plurality isogenic cells with different repertoires of glycosyltransferases and display of glycans that is used to interpret biological interactions. The plurality of engineered cells display glycans with and without the context of specific proteins exogeneously expressed, and is useful for detection and optimization of biological interactions for example binding of lectins, antibodies, viruses and bacteria and glycoproteins.

Specification includes a Sequence Listing.